

Title (en)
TERTIARY MODE OSCILLATORY CORIOLIS FLOWMETER

Title (de)
TERTIÄRMODUS-OSZILLATIONS-CORIOLIS-STRÖMUNGSMESSER

Title (fr)
DEBITMETRE DE CORIOLIS OSCILLANT EN MODE TERTIAIRE

Publication
EP 1729099 A4 20080123 (EN)

Application
EP 04773537 A 20040924

Priority
• JP 2004014449 W 20040924
• JP 2004086041 A 20040324

Abstract (en)
[origin: EP1729099A1] In order that a flow tube (3) of a Coriolis flowmeter (1) may be vibrated in the tertiary mode using one drive device (4), the drive device (4) is arranged at the antinode(H2) in the center of tertiary mode vibration, and vibration detecting sensors(5,5) are arranged at two antinodes (H1, H3) other than the antinode (H2) in the center of tertiary mode vibration. Furthermore, the displacement polarity of the drive device (4) is opposite to those of the vibration detecting sensors (5,5) so that the vibration phases of the flow tube (3) are in a relation of mutually opposite phases. Furthermore, in the positive feedback loop of the excitation circuit portion (9) for exciting tertiary mode vibration of the flow tube (3) and the vibration detecting sensors (5, 5), the excitation circuit portion (9) is structured so that the relation between the displacement polarities where the vibration phases of the flow tube (3) are opposite to one another is converted to the relation where the vibration phases of the flow tube (3) are in phase.

IPC 8 full level
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G01F 1/8431 (2013.01 - EP US); **G01F 1/8472** (2013.01 - EP US); **G01F 15/024** (2013.01 - EP US)

Citation (search report)
• [A] EP 0361388 A2 19900404 - K FLOW CORP [US]
• [A] WO 03106931 A2 20031224 - INVENSYS SYS INC [US], et al
• See references of WO 2005090930A1

Cited by
CN109154519A; US11073499B2; WO2017198439A1

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EP 1729099 A1 20061206; EP 1729099 A4 20080123; EP 1729099 B1 20170524; CN 100416231 C 20080903; CN 1957235 A 20070502;
JP 2005274254 A 20051006; JP 3783962 B2 20060607; KR 100857981 B1 20080910; KR 20060124787 A 20061205;
US 2008156109 A1 20080703; US 7437949 B2 20081021; WO 2005090930 A1 20050929

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